

Abstract of the Disclosure

SYSTEM FOR ACTUATING AN ENGINE VALVE

A system for actuating a valve element in an engine valve assembly of an internal combustion engine is provided. The system has a first piston that includes a first rod and is disposed in a first chamber. The system also includes a second piston that has a second rod with an end being separated from the engine valve assembly by a predetermined distance. The second piston is disposed in a second chamber that is in fluid connection with the first chamber such that movement of the first piston causes a corresponding movement of the second piston. A cam having a cam lobe is operatively engaged with the first rod such that rotation of the cam and cam lobe moves the first piston to thereby move the second piston. The cam lobe has a shape adapted to cause the second rod to move through the predetermined distance and to engage the engine valve assembly to move the valve element at a predetermined point in the operating cycle of the internal combustion engine.